



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

09/963,815

09/26/2001

Robert P. Benjey

01-ASD-109 (GT)

1163

200

7590

05/27/2004

EATON CORPORATION  
EATON CENTER  
1111 SUPERIOR AVENUE  
CLEVELAND, OH 44114

EXAMINER

RIVELL, JOHN A

ART UNIT

PAPER NUMBER

3753

DATE MAILED: 05/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

---

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
P.O. Box 1450  
ALEXANDRIA, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 05262004

Application Number: 09/963,815  
Filing Date: September 26, 2001  
Appellant(s): BENJEY, ROBERT P.

\_\_\_\_\_  
Roger A. Johnston  
For Appellant

**MAILED**  
**MAY 27 2004**  
**GROUP 3700**

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed March 11, 2004.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

The rejection of claims 1-11 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

The Prior Art of instant figure 5 as disclosed on page 3, line 26 through page 4, line 17 [paras. 0012-0013]

**(10) Grounds of Rejection**

Claims 1-11 are rejected under 35 U.S.C. §103(a) as being unpatentable over the prior art disclosed in instant figure 5 of the application in view of Allison. This rejection is set forth in prior Office Action, Paper No. 6, mailed July 16, 2003.

**(11) Response to Argument**

Appellants' argument is that the combination of references proposed in the Final rejection is not supportable as obvious by reason that Allison does not teach a liquid seal in the upper tube about the nozzle. In support of this allegation applicant argues that:

"The drawings of the patent clearly show that the filler nozzle (shown in dashed outline) is clearly of insufficient proportion ("diameter") to the filler tube upper region which is not reduced in size as to cause any aspirating effect. If the Allison patent taught a liquid seal in the upper filler tube end about the nozzle, then the result would be aspiration. However, Allison does not teach this."

In figures 4 and 5 of Allison the filler nozzle, shown in dashed lines, clearly is of insufficient diameter to positively "seal" against the flow of fluid within the hole 88 of plate 87, through which the filler nozzle passes.

However, as set forth in the Final rejection, this is not the embodiment relied on to demonstrate that it is known in the prior art to employ a liquid seal element about the filler nozzle when the filler nozzle is located inside of a filler neck during refueling operations of a vehicle.

As shown in fig. 8 of Allison, and as disclosed at column 8, line 27 through column 9, line 9, more specifically at column 8, lines 48-52 "an elastomeric nozzle seal

212... is adapted to resiliently and sealingly engage the exterior periphery of nozzle "N" upon insertion therethrough prior to engagement with splash door 82."

In order to support the Examiners contention of "aspiration" of fuel vapor from the fuel tank, via vapor connection 99 between the filler neck and the top of the fuel tank, occurring as a result of inflow of fuel through the nozzle the Examiner further points out that Allison further discloses at column 8, lines 52-60 that "once nozzle 'N' is inserted through nozzle opening 88, the rushing liquid fuel dispensed therefrom creates a vacuum behind nozzle seal 212 in chamber 89.

Clearly the "seal" 212 precludes the straight venting of potentially harmful fuel vapor directly to the atmosphere.

The further argument that "the Examiners proposal... fails to provide any suggestion of or basis for the proposed combination" is unpersuasive.

As set forth in the Final rejection, the Examiner concluded that it would have been obvious to add a nozzle seal about the filler nozzle in the device of application fig. 5 for the purpose of precluding straight venting of fuel vapor directly to the atmosphere as suggested by Allison.

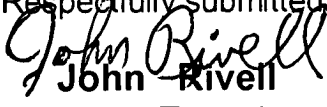
As shown in application Fig. 5, the lower end of the filler nozzle comes into close proximity with the inner diameter of the smaller diameter section of the filler neck thus forming, at this location the claimed "liquid seal". Lacking from the prior art of fig. 5 is a mechanical seal about the upper end of the filler nozzle within fill cup 5a. Absent such a mechanical seal, while the "liquid seal" does permit aspiration of the fuel vapor from conduit 13a, inadvertent migration of fuel vapor directly to the atmosphere is more than likely to occur.

The patent to Allison, by teaching the employment of a mechanical nozzle seal 212 about the filler nozzle, clearly suggests to one of ordinary skill the desirability of

preventing the direct venting of fuel vapor to the atmosphere while at the same time permitting fuel vapor recirculation.

The Examiners proposal is thus believed to be supported by the teachings of the prior art.


For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,  
  
John Rivell  
Primary Examiner  
Art Unit 3753

j.r.  
May 26, 2004

Conferees

  
Stephen Hepperle

  
Dave Scharbel

Attachments: Initialed PTO-1449 filed September 25, 2003

EATON CORPORATION  
EATON CENTER  
1111 SUPERIOR AVENUE  
CLEVELAND, OH 44114